

Abstract of the Disclosure

An apparatus for plasticating rubber, thermoset or thermoplastic materials according to this invention includes a barrel having a wall extending axially and laterally and having an outer surface and an inner surface. The wall has a thickness formed with mutually spaced holes
5 extending at least partially through the thickness. The barrel is formed of material having a first, relatively low coefficient of thermal conduction. Conductors having a coefficient of thermal conduction greater than the first coefficient are each located in and engage a hole. Heat applied to the outer surface is conducted rapidly through the wall thickness along the length of the
10 conductors to the inner surface, thereby heating and cooling material being processed located in a cavity surrounded by the wall.